What is claimed is:

1. A method for binarizing a data value, the method comprising the following steps:

a) binarizing the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme, in order to yield a primary prefix;

if the data value is greater than the cut-off value,

b) binarizing a difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme to obtain a binary suffix, the first binarization scheme being different from the second binarization scheme; and

c) appending the primary suffix to the primary prefix.

2. The method in accordance with claim 1, wherein the first binarization scheme is a truncated unary binarization scheme merely defined for values between zero and the predetermined cut-off value.

3. The method in accordance with claim 1, wherein the second binarization scheme is a k^{th} order exponential Golomb binarization scheme with k being an integer greater than or equal to zero.

4. The method in accordance with claim 1, wherein step a) is performed such that the primary prefix consists of s bits having a first bit value, if the minimum is equal

to the predetermined cut-off value, where s is an integer greater than or equal to the predetermined cut-off value, and, otherwise, the primary prefix consists of a number of n of bits having the first bit value followed by a bit having a second bit value different to the first bit value, wherein n is an integer greater than or equal to zero, with n being smaller than s, and n being unique to all possible values said minimum may assume.

5. The method in accordance with claim 4, wherein s is the predetermined cut-off value.

6. The method in accordance with claim 1, wherein step b) comprises the following steps:

d) subtracting the predetermined cut-off value from the data value to obtain a residual data value;

e) generating a secondary prefix consisting of a number m of bits having a third bit value, with $m = \lfloor \log_2(x/2^k + 1) \rfloor$, where x is the residual data value, k is a predetermined integer value greater than or equal to zero, the m bits having the third bit value being followed by a bit having a fourth bit value being different from the third bit value;

f) generating a secondary suffix being a k+m bit long binary representation of $x+2^k(1-2^m)$; and

g) appending the secondary suffix to the secondary prefix to obtain the primary suffix.

7. The method in accordance with claim 6, wherein k is equal to 3.

8. The method in accordance with claim 7, wherein the data value is the absolute value of a component of a motion vector difference in a precoded representation video signal.

9. The method in accordance with claim 8, wherein the cut-off value is 9.

10. The method in accordance with claim 6, wherein k is equal to 1.

11. The method in accordance with claim 10, wherein the data value is the absolute value of a transform coefficient level minus 1 in a precoded representation video signal.

12. The method in accordance with claim 11, wherein the cut-off value is 15.

13. The method in accordance with claim 6, wherein step f) comprises the following steps:

h) initializing k to the predetermined integer value;

i) comparing the residual data value to the k^{th} power of 2;

j) if the residual data value is greater than or equal to the k^{th} power of 2,

outputting a bit having the third bit value;

decreasing the residual data value by the k^{th} power of 2; and

implementing k;

otherwise,

outputting a bit having the forth bit value; and

outputting bits forming a k bit long binary representation of the residual data value;

repeating steps i) to k) until once performing the step of outputting the bits forming the binary representation of the residual value.

14. A method for recovering a data value from a binarized representation of the data value, the binarized representation of the data value being a codeword having a primary prefix, which is a binarization of the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme and, if the data value is greater than the predetermined cut-off value, a primary suffix appended to the primary prefix, the primary suffix being a binarization of the difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme, the method comprising the following steps:

a) extracting, from the primary prefix, the minimum;

if the minimum is equal to the cut-off value,

b) extracting, from the primary suffix, the difference from the data value minus the predetermined cut-off value; and

c) adding the predetermined cut-off value to the difference, to obtain the data value; and

if the minimum is smaller than the cut-off value,

d) regarding the minimum as the data value.

15. The method in accordance with claim 14, wherein the primary prefix consists of s bits having a first bit value, if the minimum is equal to the predetermined cut-off value, where s is an integer greater than or equal to the predetermined cut-off value, and, otherwise, the primary prefix consists of a number of n of bits having the first bit value followed by a bit having a second bit value different to the first bit value, wherein n is an integer greater than or equal to zero, with n being smaller than s, and n being unique to all possible values the minimum may assume, and wherein step a) comprises:

counting the leading bits having the first bit value in the codeword until a terminating bit having the second bit value to obtain the minimum.

16. The method in accordance with claim 14, wherein in the step of counting the count is taken as the minimum.

17. The method in accordance with claim 14, wherein the primary suffix consists of a secondary suffix appended to a secondary prefix, the secondary prefix consisting of a number m of bits having a third bit value with $m = \lfloor \log_2(x/2^k + 1) \rfloor$, where x is a residual data value and is equal to the difference of the data value minus the predetermined cutoff value, k is a predetermined integer value greater than or equal to zero, the m bits having the third bit value being followed by a bit having a forth bit value being different from the third bit value, and the secondary suffix being a k+m bit long binary representation of $x+2^k(1-2^m)$, wherein step b) comprises the following steps:

counting the leading bits having the third bit value of the primary suffix until the terminating bit having the forth bit value to obtain the value of m;

if $m = 0$ and $k = 0$, assuming that the data value is equal to the predetermined cut-off value;

if neither m nor k is equal to zero,

reading k+m bits following the terminating bit to obtain a value of $x+2^k(1-2^m)$; and

subtracting $2^k(1-2^m)$ from the value of $x+2^k(1-2^m)$ to obtain the residual data value; and

if m is zero but k is not equal to zero,

reading k bits following the terminating bit to obtain the value of the residual data value.

18. A method for arithmetically coding a data value into a coded bit stream, the method comprising the following steps:

a) binarizing the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme, in order to yield a primary prefix;

if the data value is greater than the cut-off value,

b) binarizing a difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme to obtain a binary suffix, the first binarization scheme being different from the second binarization scheme; and

c) appending the primary suffix to the primary prefix;

for each bit in the codeword,

if the bit of the code word is part of the primary prefix, binary arithmetically coding the bit by means of a adaptively varying bit value probability estimation; and

if the bit of the code word is part of the primary suffix, binary arithmetically coding the bit by means of a static bit value probability estimation,

thereby obtaining the coded bit stream.

19. The method in accordance with claim 18, wherein the adaptively varying bit value probability estimation varies in accordance with a predetermined context model dependent on past coded bits.

20. Method for decoding a coded bit stream which represents a binarized representation of the data value, the binarized representation of the data value being a codeword having a primary prefix, which is a binarization of the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme and, if the data value is greater than the predetermined cut-off value, a primary suffix appended to the primary prefix, the primary suffix being a binarization of the difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme, the method comprising the following steps:

for each bit in the codeword,

if the bit of the codeword is part of the primary prefix, determining the bit by binary arithmetically decoding the coded bit stream by means of a adaptively varying bit value probability estimation; and

if the bit of the codeword is part of the primary suffix, determining the bit by binary arithmetically decoding the bit by means of a static bit value probability estimation,

thereby obtaining the codeword;

extracting, from the primary prefix, the minimum;

if the minimum is equal to the cut-off value,

extracting, from the primary suffix, the difference from the data value minus the predetermined cut-off value; and

adding the predetermined cut-off value to the difference, to obtain the data value; and

if the minimum is smaller than the cut-off value,

regarding the minimum as the data value.

21. An Apparatus for binarizing a data value, comprising

a means for binarizing the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme, in order to yield a primary prefix; and

a means for , if the data value is greater than the cut-off value, binarizing a difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme to obtain a binary suffix, the first binarization scheme being different from the second binarization scheme, and appending the primary suffix to the primary prefix.

22. An Apparatus for recovering a data value from a binarized representation of the data value, the binarized representation of the data value being a codeword having a primary prefix, which is a binarization of the minimum

of the data value and a predetermined cut-off value in accordance with a first binarization scheme and, if the data value is greater than the predetermined cut-off value, a primary suffix appended to the primary prefix, the primary suffix being a binarization of the difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme, the apparatus comprising

a means for extracting, from the primary prefix, the minimum; and

a means for, if the minimum is equal to the cut-off value, extracting, from the primary suffix, the difference from the data value minus the predetermined cut-off value; and adding the predetermined cut-off value to the difference, to obtain the data value, and, if the minimum is smaller than the cut-off value, regarding the minimum as the data value.

23. An Apparatus for arithmetically coding a data value into a coded bit stream, the apparatus comprising

means for binarizing the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme, in order to yield a primary prefix;

means for, if the data value is greater than the cut-off value, binarizing a difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme to obtain a binary suffix, the first binarization scheme being different from the

second binarization scheme, and appending the primary suffix to the primary prefix; and

means for, for each bit in the codeword, if the bit of the code word is part of the primary prefix, binary arithmetically coding the bit by means of a adaptively varying bit value probability estimation, and for, if the bit of the code word is part of the primary suffix, binary arithmetically coding the bit by means of a static bit value probability estimation, thereby obtaining the coded bit stream.

24. Apparatus for decoding a coded bit stream which represents a binarized representation of the data value, the binarized representation of the data value being a codeword having a primary prefix, which is a binarization of the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme and, if the data value is greater than the predetermined cut-off value, a primary suffix appended to the primary prefix, the primary suffix being a binarization of the difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme, comprising:

means for, for each bit in the codeword,

if the bit of the codeword is part of the primary prefix, determining the bit by binary arithmetically decoding the coded bit stream by means of a adaptively varying bit value probability estimation; and

if the bit of the codeword is part of the primary suffix, determining the bit by binary arithmetically de-

coding the bit by means of a static bit value probability estimation,

thereby obtaining the codeword;

means for extracting, from the primary prefix, the minimum; and

means for, if the minimum is equal to the cut-off value,

extracting, from the primary suffix, the difference from the data value minus the predetermined cut-off value; and

adding the predetermined cut-off value to the difference, to obtain the data value; and

if the minimum is smaller than the cut-off value,

regarding the minimum as the data value.

25. Computer program having instructions for performing, when running on a computer, a method for binarizing a data value, the method comprising the following steps:

a) binarizing the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme, in order to yield a primary prefix;

if the data value is greater than the cut-off value,

b) binarizing a difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme to obtain a binary suffix, the first binarization scheme being different from the second binarization scheme; and

c) appending the primary suffix to the primary prefix.

26. Computer program having instructions for performing, when running on a computer, a method for recovering a data value from a binarized representation of the data value, the binarized representation of the data value being a codeword having a primary prefix, which is a binarization of the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme and, if the data value is greater than the predetermined cut-off value, a primary suffix appended to the primary prefix, the primary suffix being a binarization of the difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme, the method comprising the following steps:

b) extracting, from the primary prefix, the minimum;

if the minimum is equal to the cut-off value,

b) extracting, from the primary suffix, the difference from the data value minus the predetermined cut-off value; and

c) adding the predetermined cut-off value to the difference, to obtain the data value; and

if the minimum is smaller than the cut-off value,

d) regarding the minimum as the data value.

27. Computer program having instructions for performing, when running on a computer, a method for decoding a coded bit stream which represents a binarized representation of the data value, the binarized representation of the data value being a codeword having a primary prefix, which is a binarization of the minimum of the data value and a predetermined cut-off value in accordance with a first binarization scheme and, if the data value is greater than the predetermined cut-off value, a primary suffix appended to the primary prefix, the primary suffix being a binarization of the difference of the data value minus the predetermined cut-off value in accordance with a second binarization scheme, the method comprising the following steps:

for each bit in the codeword,

if the bit of the codeword is part of the primary prefix, determining the bit by binary arithmetically decoding the coded bit stream by means of a adaptively varying bit value probability estimation; and

if the bit of the codeword is part of the primary suffix, determining the bit by binary arithmetically decoding the bit by means of a static bit value probability estimation,

thereby obtaining the codeword;

extracting, from the primary prefix, the minimum;

if the minimum is equal to the cut-off value,

extracting, from the primary suffix, the difference from the data value minus the predetermined cut-off value; and

adding the predetermined cut-off value to the difference, to obtain the data value; and

if the minimum is smaller than the cut-off value,

regarding the minimum as the data value.

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